



June 10, 2019

Ms. Sonia Vega
On-Scene Coordinator
U.S. Environmental Protection Agency Region 5
600A Joliet Road
Willowbrook, IL 60527

**Subject: Executive Briefing - Site Assessment Activities - Niagara LaSalle Optima Steel Site
Revision 1
EPA Contract No.: EP-S5-13-01
Technical Direction Document No.: S05-0001-1707-004
Document Tracking No.: 2825A**

Dear Ms. Vega:

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech, Inc. (Tetra Tech) to provide support during site assessment activities that took place at the Niagara LaSalle Optima Steel (Niagara LaSalle) facility and surrounding neighborhood in Hammond, Lake County, Indiana in August and September of 2017, and in August and November of 2018.

The work was assigned under Superfund Technical Assessment and Response Team (START) Contract No. EP-S5-13-01, Technical Direction Document (TDD) No. S05-0001-1707-004.

EPA and Tetra Tech completed community outreach and canvassing efforts, collected soil and baghouse samples from the Niagara LaSalle facility, and collected soil samples from residential properties located near the Niagara LaSalle facility. The following sections of this briefing discuss the site referral, community outreach efforts, sampling events, and results.

Appendix A provides the figures for this briefing and Appendix B includes analytical summary tables for samples above applicable screening levels collected during site activities.

SITE LOCATION

The Niagara LaSalle facility is located on a 31.43 acre parcel located at 1412 East 150th Street in Hammond, Lake County, Indiana (Appendix A, Figure 1). The geographical coordinates to the center of the building are 41°37'19.1" north and 87°29'37.2" west. The surrounding area is a

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mixture of industrial, commercial, and residential properties. The facility is bound to the north by 150th Street, to the east by the Indiana Toll Road, to the south by the Sanitary District of Hammond, and to the west by various residential and commercial properties. The residential investigation area is bound by Hoffman Street to the north, Walnut Avenue to the east, the Niagara LaSalle Facility and 150th Street to the south, and Magnolia Avenue to the west (Appendix A, Figure 2).

SITE REFERRAL

The Niagara LaSalle facility is a cold-finished steel bar producer that offers a full family of steel bar products, cut and drawn to a broad range of shapes and sizes. In March of 2017, IDEM was notified that Optima Special Steel, Inc., the parent company of Niagara LaSalle Corporation, filed for chapter 11 bankruptcy. IDEM conducted a review of the facility using Google Maps and discovered red staining along the northern perimeter of the facility near the baghouse dust collector on 150th Street. In a phone call with Mr. Ron Novak, the Director of the Hammond Department of Environmental Management, IDEM learned that numerous past complaints had been filed with the city stating that cars were being covered by fugitive dust from the facility. Additionally, Mr. Novak informed IDEM that the facility used lead in their processes.

In April of 2017, IDEM Site Investigation (SI) staff obtained a signed access agreement from Niagara LaSalle to conduct screening of onsite soil for heavy metals utilizing a handheld X-Ray Fluorescence (XRF) analyzer. A verbal access agreement was obtained from the City of Hammond to screen off-site soils for heavy metals in the rights-of-way of nearby residential properties. Elevated levels of lead as high as 4,822 milligrams per kilogram (mg/kg) were detected at the Niagara LaSalle facility. In the residential areas, lead concentrations were found as high as 3,468 mg/kg. Based on the findings of the XRF screening, IDEM referred the site to EPA for a Removal Assessment in July of 2017.

SITE ASSESSMENT ACTIVITIES

2017

Facility Sampling

Prior to sampling events, a Sampling and Analysis Plan (SAP) and Health and Safety Plan (HASP) were approved by EPA. In August 2017, soil samples were collected from the 0- to 6-inches and 6- to 12-inches below ground surfaces (bgs) intervals at 11 locations around the perimeter of the Niagara LaSalle facility inside of the site boundary, in accordance with the SAP. All samples were screened using an XRF and shipped to CT Laboratories in Baraboo, Wisconsin to be analyzed for

total metals using EPA Methods 6020A and 7471B. Five samples were also submitted for toxicity characteristic leaching procedure (TCLP) Metals analysis using EPA Method SW-846 1311.

Facility sampling locations and samples with antimony, lead, and arsenic concentrations exceeding the EPA Removal Management Levels (RML) with a Target Cancer Risk of 10^{-4} and a Target Hazard Quotient (HQ) of 1 at the Niagara LaSalle facility are provided in Figure 3 of Appendix A.

Community Outreach

This section summarizes the community outreach efforts conducted by EPA, START, and the City of Hammond at the Niagara LaSalle Site in August 2017. A letter containing site contact information and an access agreement for soil sampling was developed by EPA and distributed by the City of Hammond. EPA and START conducted two days of door-to-door canvassing in the preliminary residential investigation area in an attempt to obtain access agreements and to inform residents of upcoming sampling activities. The preliminary residential investigation area was bound by 149th Street to the north, by the Indiana Toll Road to the east, by 150th Street to the south, and by Magnolia Avenue to the west.

Residential Sampling

In September of 2017, EPA and START collected 5-point composite soil samples from the front, back, and side yards of 23 homes in the preliminary residential investigation area. If a garden was present, a soil sample from the garden area was collected as well. Samples were collected from the 0- to 6-inches and 6- to 12-inches bgs intervals. Samples were screened with an XRF and shipped to CT Laboratories to be analyzed for total metals using EPA Methods 6020A and 7471B.

Facility Results

In 2017, 11 samples collected from five locations at the Niagara LaSalle facility had lead concentrations exceeding the EPA RML with $TR=10^{-4}$ and $HQ=1$ of 400 mg/kg for lead in residential soil. Three of those samples had lead concentrations exceeding the EPA RML of 800 mg/kg for lead in industrial soil. Additionally, three samples from three locations had antimony concentrations exceeding the EPA RML of 31 mg/kg for antimony in residential soil. No samples had arsenic concentration exceeding EPA RMLs for residential or industrial soil. Facility sampling locations and exceedances at the Niagara LaSalle facility are provided in Figure 3 of Appendix A.

A summary table presenting facility soil sample exceedances is provided in Table 1 of Appendix B.

Lead concentrations in soil samples collected at the Niagara LaSalle facility in 2017 ranged from 87.6 mg/kg to 2,330 mg/kg in the 0- to 6-inches bgs interval and from 48.8 mg/kg to 777 mg/kg in the 6- to 12-inches bgs interval. TCLP results for Lead ranged from 0.55 mg/L to 5.3 mg/L. Arsenic concentrations in facility soil samples ranged from 2.6 mg/kg to 20.7 mg/kg in the 0- to 6-inches bgs interval and from 1.8 mg/kg to 17.1 mg/kg in the 6- to 12-inches bgs interval. TCLP results for arsenic ranged from 0.0041 mg/L to 0.0082 mg/L. Antimony concentrations in facility soil samples ranged from 1.5 mg/kg to 91.4 mg/kg in the 0- to 6-inches bgs interval and from 0.87 mg/kg to 20 mg/kg in the 6- to 12-inches bgs interval.

Residential Results

Lead concentrations in 2017 residential soil samples ranged from 70 mg/kg to 1,200 mg/kg in the 0- to 6-inches bgs interval and from 33 mg/kg to 300 mg/kg in the 6- to 12-inches bgs interval. Arsenic concentrations in residential soil samples ranged from 3.7 mg/kg to 180 mg/kg in the 0- to 6-inches bgs interval and from 3.2 mg/kg to 49 mg/kg in the 6- to 12-inches bgs interval. Antimony concentrations in residential soil ranges from 2.2 mg/kg to 36 mg/kg in the 0- to 6-inches bgs interval and from 1.4 mg/kg to 13 mg/kg in the 6- to 12-inches bgs interval.

Six samples collected from two residences had arsenic concentrations exceeding the EPA RML with $TR=10^{-4}$ and $HQ=1$ of 35 mg/kg for arsenic in residential soil. 14 samples collected from seven residences had lead concentrations exceeding the EPA RML of 400 mg/kg for lead in residential soil. Two samples collected from one residence had antimony concentrations exceeding the EPA RML of 31 mg/kg for antimony in residential soil. Residential sampling locations and exceedances are provided in Figure 4 of Appendix A. A summary table presenting residential soil sample exceedances is provided in Table 2 of Appendix B.

2018

Community Outreach

In June and July of 2018, EPA and START conducted four days of door-to-door canvassing in the expanded residential investigation area to distribute informational packets and access agreements. The expanded residential investigation area was decided based on input from the City of Hammond and EPA FIELDS to further delineate potential contamination from the Niagara LaSalle facility. The expanded investigation area is bound by Hoffman Street to the north, by Indiana Toll Road to

the east, by 150th Street to the south, and by Magnolia Avenue to the west. Homes along 150th Street, the 4800 block of Walnut Avenue, and the 4900 blocks of Chestnut at Beech Avenue were targeted for canvassing and sampling.

Residential Sampling

In August of 2018, EPA and START collected 5-point composite soil samples in the front, back, and side yards, as well as garden areas, of 22 homes in the expended investigation area. Samples were collected from the 0- to 6-inches and 6- to 12-inches bgs depth intervals. Samples were screened with an XRF and then shipped to ALS Laboratories in Holland, Michigan to be analyzed for total metals using EPA Methods 6020A and 7471B.

Residential sampling locations and sample results with lead and arsenic concentrations exceeding the EPA RML with $TR=10^{-4}$ and $HQ=1$ in the residential sampling area are provided in Figure 4 of Appendix A.

In November of 2018, a subset of residential soil samples was sent to Microvision Labs, Inc. along with facility samples for microscopy analysis.

Facility Sampling

In November 2018, six additional samples were collected from the northern perimeter of the Niagara LaSalle facility along 150th Street in accordance with the SAP. Samples were collected from the 0- to 6-inches bgs depth interval as advised by EPA FIELDS. Additionally, a sample of baghouse dust material was collected from the collection container. Two samples of material buildup were collected from the concrete pad underneath the baghouse dust collection container. Soil samples were shipped to CT Laboratories to be analyzed for total metals. The baghouse dust material sample, one buildup material sample, and a subset of facility soil samples were sent to Microvision Labs, Inc. in Chelmsford, Massachusetts for microscopy analysis for lead speciation.

Facility Results

Seven samples collected from six locations at the Niagara LaSalle facility in 2018 had lead concentrations exceeding the EPA RML of 400 mg/kg for lead in residential soil. All seven of those samples had lead concentrations also exceeding the EPA RML of 800 mg/kg for lead in industrial soil. Three samples collected from three locations had antimony concentrations exceeding the EPA RML with $TR=10^{-4}$ and $HQ=3$ of 94 mg/kg for antimony. Facility sampling locations and exceedances at the Niagara LaSalle facility are provided in Figure 3 of Appendix A.

A summary table presenting facility soil sample exceedances is provided in Table 1 of Appendix B.

Lead concentrations in 2018 soil samples collected at the Niagara LaSalle facility ranged from 1,190 mg/kg to 4,810 mg/kg in the 0- to 6-inches bgs interval. Arsenic concentrations in facility soil samples ranged from 11.2 mg/kg to 21.6 mg/kg in the 0- to 6-inches bgs interval. Antimony concentrations in facility soil samples ranged from 37.3 mg/kg to 165 mg/kg in the 0- to 6-inches bgs interval.

Residential Results

Lead concentrations in the 2018 residential soil samples ranged from 86 mg/kg to 1,200 mg/kg in the 0- to 6-inches bgs interval and from 20 mg/kg to 520 mg/kg in the 6- to 12-inches bgs interval. Arsenic concentrations in residential soil samples ranges from 4.1 mg/kg to 87 mg/kg in the 0- to 6-inches bgs interval and from 2.5 mg/kg to 70 mg/kg in the 6- to 12-inches bgs interval. Antimony concentrations in residential soil ranges from 2.4 mg/kg to 58 mg/kg in the 0- to 6-inches bgs interval and from 0.7 mg/kg to 33 mg/kg in the 6- to 12-inches bgs interval.

Eight samples collected from four residences had arsenic concentrations exceeding the EPA RML with $TR=10^{-4}$ and $HQ=1$ of 35 mg/kg for arsenic in residential soil. 27 samples collected from 10 residences had lead concentrations exceeding the EPA RML of 400 mg/kg for lead in residential soil. Nine samples collected from three residences had antimony concentrations exceeding the EPA RML of 31 for antimony in residential soil. Residential sampling locations and exceedances are provided in Figure 4 of Appendix A. A summary table presenting residential soil sample exceedances is provided in Table 2 of Appendix B.

If you have any questions or comments regarding this briefing, please call me at (708) 955-4569.

Sincerely,



Rachel Houle
Project Manager

Appendices:

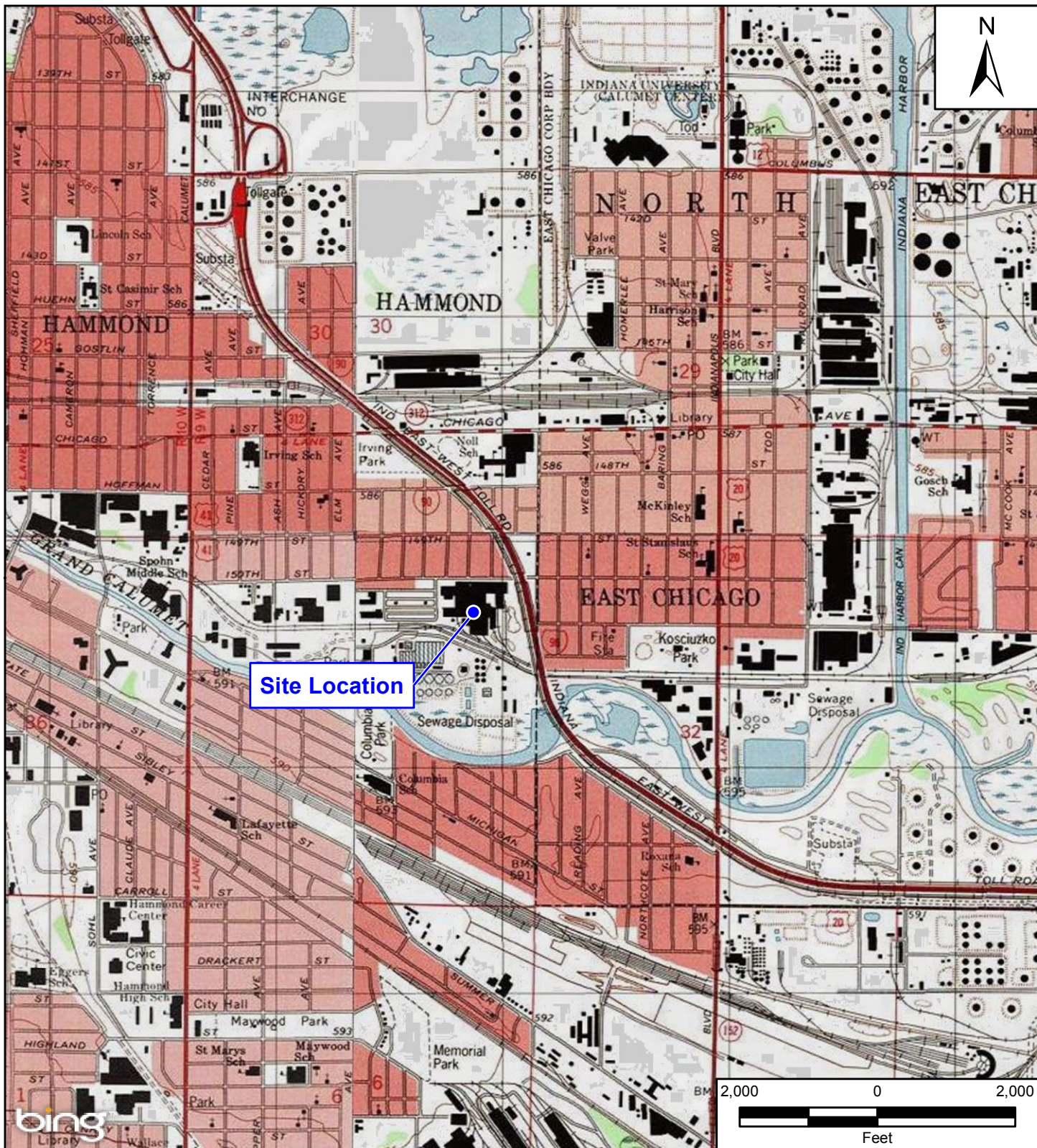
A – Figures

B – Analytical Summary Tables

APPENDIX A

Figures

File Path: G:\GIG9026-START IV\Indiana\Niagara LaSalle\mxd\Fig1-Site Location.mxd



Reference Map



Niagara LaSalle-Optima Steel
1412 East 150th Street
Hammond, Lake County, Indiana

Figure 1
Site Location Map



Prepared For: USEPA

Prepared By: Tetra Tech Inc.

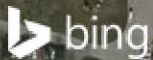
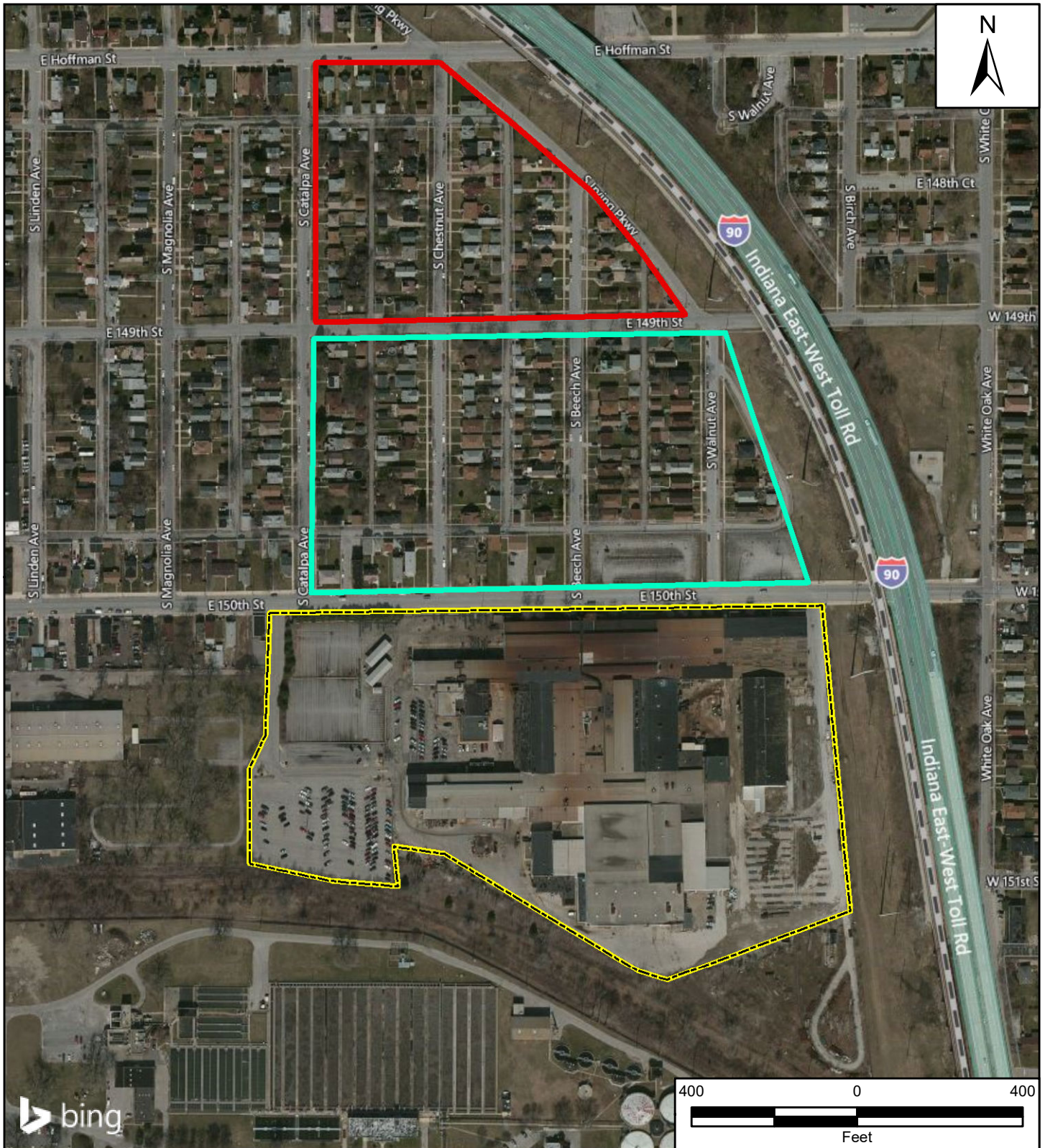
Source: USGS 7.5-Minute Topographic Quadrangle Map: Whiting, IN 1988.

Date Saved: 7/27/2017

EPA Contract No.: EP-S5-13-01

TDD No.: S05-0001-1707-004

Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree



Reference Map



Legend

- Approximate Site Boundary
- Expanded Residential Investigation Area
- Preliminary Residential Investigation Area

Source: Bing Maps Hybrid 2013

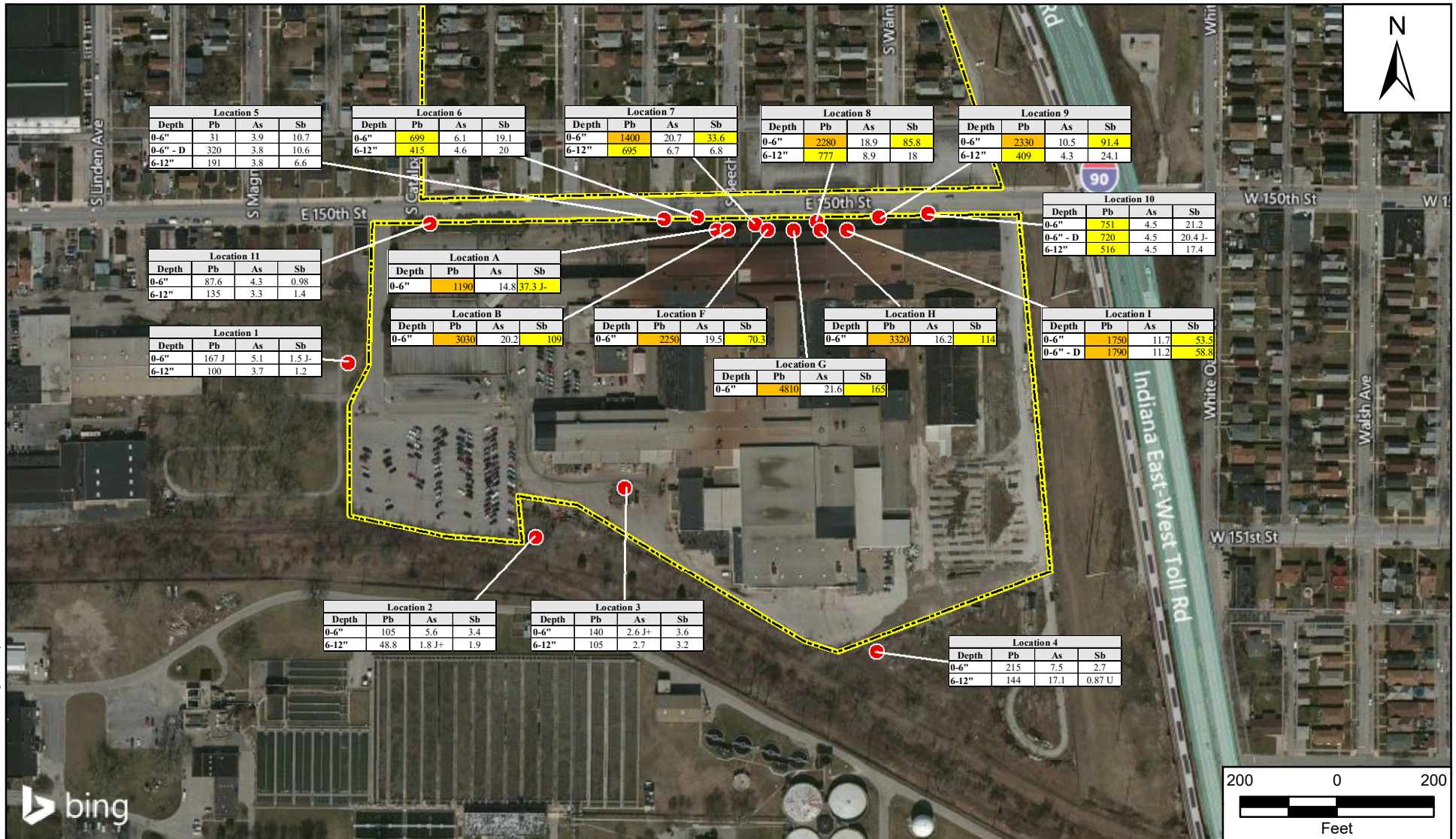
Niagara LaSalle-Optima Steel
1412 East 150th Street
Hammond, Lake County, Indiana

Figure 2 Site Layout Map



Prepared For: USEPA

Prepared By: Tetra Tech Inc.



Legend

- Sample Location
- Approximate Site Boundary
- Concentration exceeds the EPA Removal Management Level for residential soil
- Concentration exceeds the EPA Removal Management Level for industrial soil

All results presented in units of parts per million (ppm)

Niagara LaSalle-Optima Steel
1412 East 150th Street
Hammond, Lake County, Indiana

Figure 3
Analytical Results



Prepared For: USEPA

Prepared By: Tetra Tech Inc.

Source: Bing Maps Hybrid 2013

APPENDIX B
Analytical Summary Tables

Table 1, Appendix B
Niagara LaSalle Facility Samples with Exceedances

Analyte			Antimony	Arsenic	Lead
Residential Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1			31	35	400
Industrial Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1			470	300	800
Facility Location	Year Collected	Depth			
Location 6	2017	00-06	19.1	6.1	699
		06-12	20	4.6	415
Location 7	2017	00-06	33.6	20.7	1400
		06-12	6.8	6.7	695
Location 8	2017	00-06	85.8	18.9	2280
		06-12	18	8.9	777
Location 9	2017	00-06	91.4	10.5	2330
		06-12	24.1	4.5	409
Location 10	2017	00-06	21.2	4.5	751
		00-06	20.4 J-	4.5	720
		06-12	17.4	4.5	516
Location A	2018	00-06	37.3 J-	14.8	1190
Location B	2018	00-06	109	20.2	3030
Location F	2018	00-06	70.3	19.5	2250
Location G	2018	00-06	165	21.6	4810
Location H	2018	00-06	114	16.2	3320
Location I	2018	00-06	53.5	11.7	1750
		00-06	58.8	11.2	1790

Notes:

RML - Removal Management Level

HQ - Target Hazard Quotient

All RML and result units are milligrams per kilogram (mg/kg)

Only samples with exceedances are presented in this table

Table 2, Appendix B
Residential Investigation Area Samples with Exceedances

Analyte					Antimony	Arsenic	Lead
Residential Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1					31	35	400
Industrial Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1					470	300	800
Property ID	Year Collected	Yard Area	Depth				
2001	2018	SY	00-06		25	9.7	450
		FY	00-06		21	23	510
2007	2018	FY	00-06		21	6.9	500
			06-12		22 J+	7 J+	450 J
		SY	00-06		20	7.5	500
2110	2018	BY	00-06		18	7.3	440
2140	2018	BY	00-06		4.8	61	150
2190	2018	FY	00-06		45	11	830
			06-12		33	9.7	520
			06-12		30	9.2	480
		GD	00-06		46	9	1200
2422	2018	BY	06-12		5.3	37	170
2483	2018	FY	00-06		4.7	87	180
			06-12		2.7	70	68
2510	2018	BY	00-06		6.5	68	220
			06-12		3.4 J+	38	80
		FY	00-06		5.4	65	140
			00-06		3.8	57	120
2518	2018	GD	00-06		5.6	6.7	450
2546	2018	BY	00-06		14	24	650
		FY	00-06		14	9.6	400
2812	2018	FY	00-06		8.6	8	440
2857	2018	BY	00-06		13	8.7	510
			06-12		8	9.5	420
			06-12		7	9.8	420
		FY	00-06		15	11	440
			00-06		15	9.1	430
		GD	00-06		15	8.1	480
2916	2018	BY	00-06		49	9.2 J+	1000
			00-06		53	9.2 J+	1000
		FY	00-06		58	9.9	940
2985	2018	BY	00-06		44	9.8	890
			06-12		24	8.8	420
		FY	00-06		48	13	970
			06-12		32 J+	9.6 J+	460
1095	2017	BY	00-06		23	160	500
1115	2017	FY	00-06		16 J+	14	460 J
			00-06		14 J+	9.8	1200 J
1143	2017	FY	00-06		11	23	480
		GD	00-06		9.4	18	400
1183	2017	FY	00-06		21	7.6	460
		GD	00-06		19	9.5	590

Table 2, Appendix B
Residential Investigation Area Samples with Exceedances

Analyte					Antimony	Arsenic	Lead
Residential Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1					31	35	400
Industrial Soil RML, Cancer Risk 10 ⁻⁴ , HQ=1					470	300	800
Property ID	Year Collected	Yard Area	Depth				
1230	2017	SY	00-06		18	14	490
		GD	00-06		15	25	430
1365	2017	BY	00-06		29	180	420
		FY	00-06		36	84	710
			06-12		4.4	49	64
		GD	00-06		14	160	270
			00-06		35 J-	83	680
1815	2017	FY	00-06		26	7.4	440
		BY	00-06		22	7	500

Notes:

FY - Front Yard

BY - Back Yard

SY - Side Yard

GD - Garden Area

RML - Removal Management Level

HQ - Target Hazard Quotient

All RML and result units are milligrams per kilogram (mg/kg)

Only samples with exceedances are presented in this data table